

# jean-françois pambrun

researcher | engineer | software developer

## about

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## languages

bilingual french/english

## programming

java, javascript  
matlab, c, c++  
linux, xml, git  
html5, latex

## standards

dicom, ihe, hl7  
jpeg 2000, jpip

## education

since 2011	<b>Ph.D. in electrical engineering (in progress)</b>	École de technologie supérieure (ÉTS)
	<i>improving medical image compression and transmission</i>	
2009-2010	<b>M.Sc. in electrical engineering (fast-track<sup>†</sup>)</b>	École de technologie supérieure (ÉTS)
	<i>evaluating the diagnostic quality of lossy compressed images</i>	
2005-2009	<b>B.ing. in electrical engineering</b>	École de technologie supérieure (ÉTS)
	<i>information technologies and telecommunication specialization</i>	
2001-2005	<b>DEC in computerized systems technology</b>	Cégep de l'Outaouais

## experience

2009-2014	<b>lecturer</b>	École de technologie supérieure (ÉTS)
	<i>software development environment (ele116)</i>	
	<i>image processing and analysis (ele747)</i>	
2009-2014	<b>teaching assistants</b>	École de technologie supérieure (ÉTS)
	<i>healthcare distributed systems (gts840)</i>	
	<i>software development environment (ele116)</i>	
	<i>image processing and analysis (ele747)</i>	
01-09 2009	<b>software developer</b>	CAE inc.
	<i>head-up display simulation for military flight simulators</i>	
2006-2008	<b>research assistant</b>	École de technologie supérieure (ÉTS)
	<i>implementation of a standard compliance validation tool for hl7v3</i>	
	<i>implementation and evaluation of a medical image streaming platform</i>	

## awards

2014	<b>SIIM annual meeting best scientific poster</b>	500\$
2011	<b>NSERC doctoral Alexander-Graham-Bell scholarship</b>	35,000\$/yr
2011	<b>ÉTS excellence graduate student scholarship</b>	20,000\$/yr
2011	<b>FRQNT doctoral research scholarship</b>	20,000\$/yr
2009	<b>FRQNT master's research scholarship</b>	15,000\$/yr
2006	<b>NSERC undergraduate student research awards</b>	4,500\$

## volunteer work

since 2013	<b>NPO board member</b>	Association étudiante de l'ÉTS
	<i>vice-president of services</i>	
	<i>academic commission student representative</i>	
	<i>disciplinary committee student representative</i>	

<sup>†</sup> not a member of the OIQ

<sup>‡</sup> allows doctoral admission without obtaining the master's degree

## publication

### articles in peer-reviewed journals

Computed Tomography Image Compressibility and Limitations of Compression Ratio-Based Guidelines

Pambrun J.F. Noumeir R.

*Journal of Digital Imaging, Springer Science, 2015*

Teaching DICOM by Problem Solving.

Noumeir R. Pambrun J.F.

*Journal of Digital Imaging, Springer Science, 2012*

Streaming of medical images using JPEG2000 interactive protocol

Pambrun J.F. Noumeir R.

*International Journal of Innovative Computing and Applications. 2012*

Using JPEG 2000 Interactive Protocol to Stream a Large Image or a Large Image Set

Noumeir R. Pambrun J.F.

*Journal of Digital Imaging, Springer Science, 2010*

### international peer-reviewed conferences/proceedings

Limitations of the SSIM quality metric in the context of diagnostic imaging(accepted)

Pambrun J.F. Noumeir R.

*IEEE International Conference on Image Processing (ICIP), 2015*

VOI-Based JPEG 2000 Compression for Medical Applications(submitted)

Pambrun J.F. Noumeir R.

*IEEE International Conference on Visual Communications and Image Processing (VCIP), 2015*

Kurtosis Constrained Image Compression for Medical Applications(submitted)

Pambrun J.F. Noumeir R.

*IEEE International Conference on Visual Communications and Image Processing (VCIP), 2015*

Compressibility variations of JPEG2000 compressed computed tomography

Pambrun J.F. Noumeir R.

*IEEE International Conference of the Engineering in Medicine and Biology Society (EMBC), 2013*

Learning DICOM by solving real clinical problems

Noumeir R. Pambrun J.F.

*IEEE-EMBS International Conference on Biomedical and Health Informatics, 2012*

Perceptual quantitative quality assessment of JPEG2000 compressed ct images with various slice thicknesses

Pambrun J.F. Noumeir R.

*IEEE International Conference on Multimedia and Expo, 2011*

Interoperability testing of integration profiles based on HL7 standard version 3

Pambrun J.F. Noumeir R.

*IEEE International Conference on Information Technology and Applications in Biomedicine, 2010*

Hands-on Approach for Teaching HL7 version 3

Noumeir R. Pambrun J.F.

*IEEE International Conference on Information Technology and Applications in Biomedicine, 2010*

Streaming of Medical Images Using JPEG 2000 Interactive Protocol

Noumeir R. Pambrun J.F.

*IEEE International Conference on Systems, Signals and Image Processing. 2010*

Interoperability Testing Software for Sharing Medical Documents and Images

Berube R, Pambrun J.F, Noumeir R.

*IEEE International Conference on Internet and Web Applications and Services. 2010*

Images within the Electronic Health Record

Noumeir R. Pambrun J.F.

*IEEE International Conference on Image Processing. 2009*